

Bakersfield to Palmdale High-Speed Train Project EIR/EIS

Initial Alternatives Analysis (AA)

California High-Speed Rail Authority

Board Briefing July 8, 2010





- Approximately 77 miles
- Three Subsections
 - Edison: 11.1 mi.
 - Tehachapi: 40.7 mi.
 - Antelope Valley: 25.4 mi.



Bakersfield to Palmdale EIR/EIS



Alternatives Development

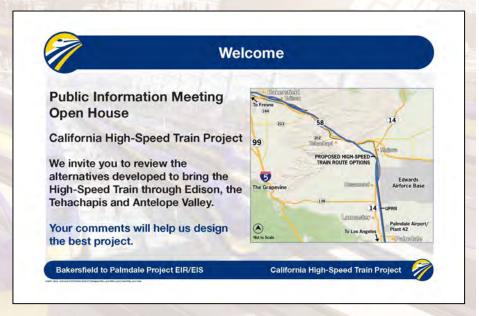
- Design Objectives
 - Minimize Travel Time/Route Length
 - Maximize connectivity and accessibility
 - Minimize operating and capital costs
- Comparison Measures
 - Natural Environment and Resources
 - Community Impacts and Support
 - Land Use
 - Construction Feasibility





Public Outreach Activities

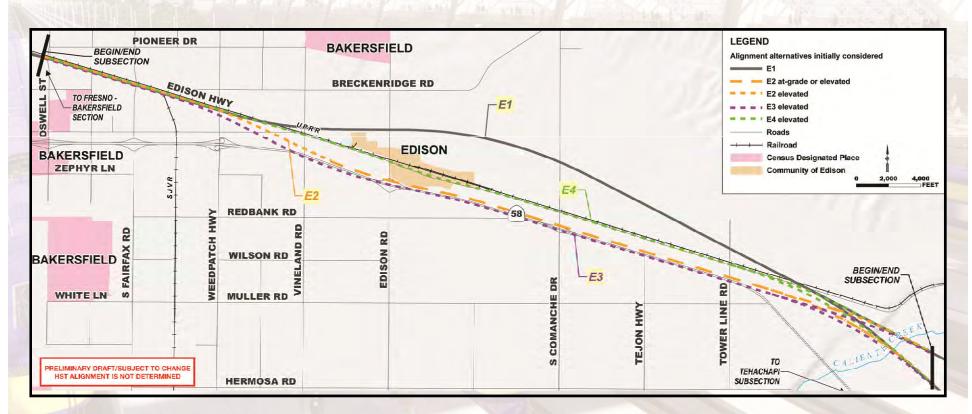
- Scoping meetings / Report
- Technical Working Groups (TWG)
- Stakeholder meetings
 - Resource agencies
 - Local agencies, City Councils
 - Boards of Supervisors
- Public information meetings
- Fact Sheets
- E-mail alerts
- Media outreach
- CHSRA website updates





Edison Alternatives Considered

Alternative	E1 - North of Edison Highway	E2 - SR-58 Adjacent North Side		E3 - In SR-58 Median	E4 - Along Edison Highway
Profile	Primarily At-Grade	Partially At-Grade	All Elevated	All Elevated	All Elevated





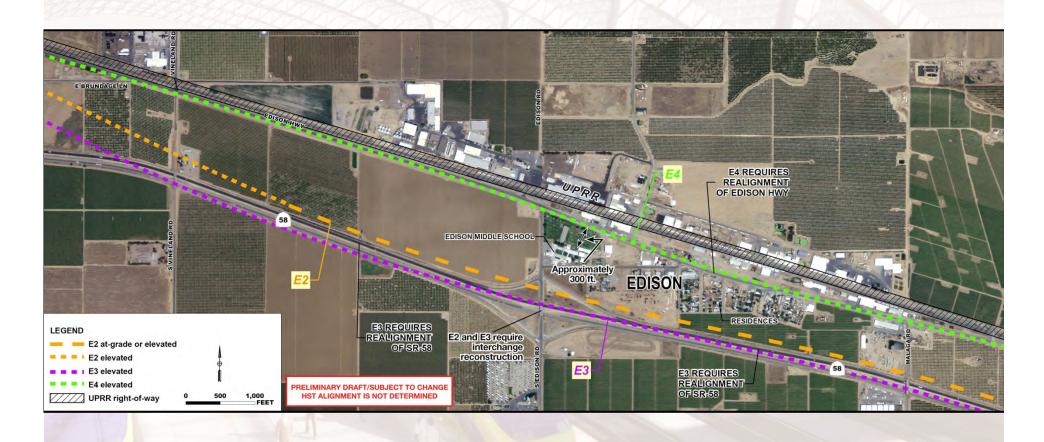
Edison Alternatives Carried Forward

Alternative	E2 - SR-58 Adjacent North Side		E3 - In SR-58 Median	E4 - Along Edison Highway
Sub-Alternative	Partially At-Grade	All Elevated	All Elevated	All Elevated



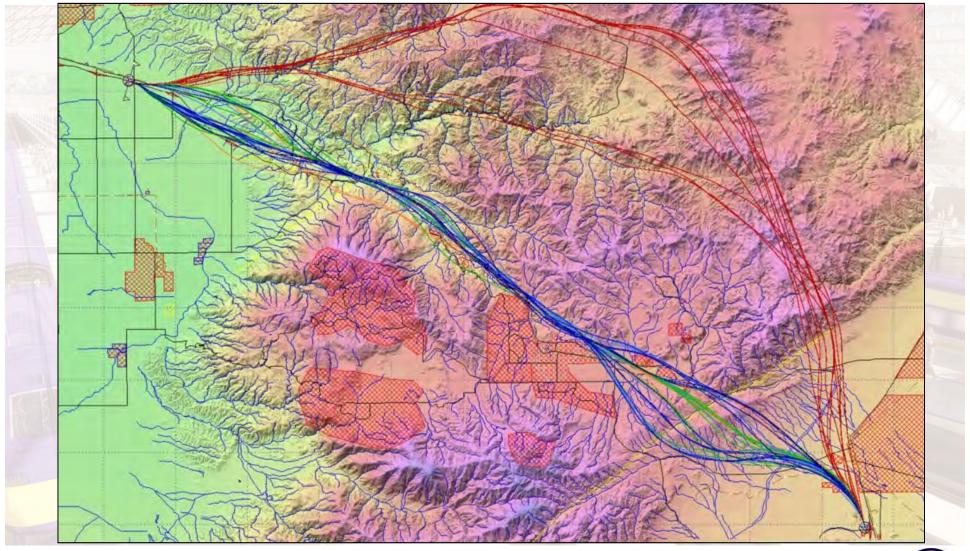


Edison Alternatives Carried Forward



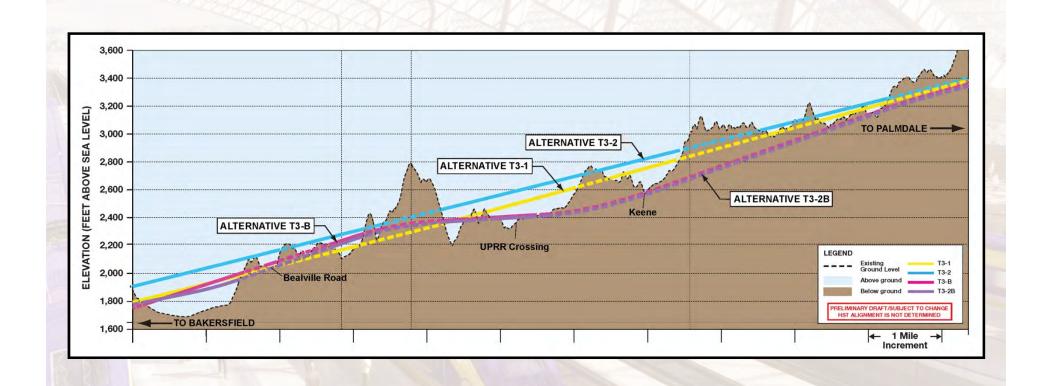


Quantm-Generated Alignments





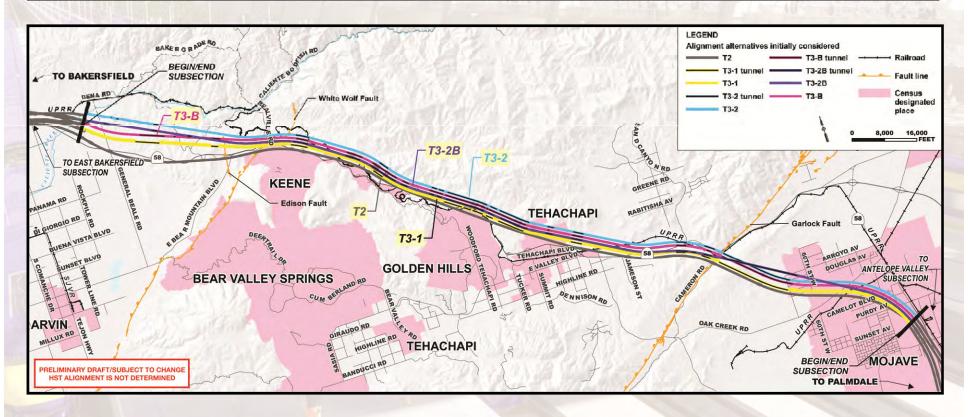
Alternative Profiles Western Tehachapi Mountains





Tehachapi Alternatives Considered

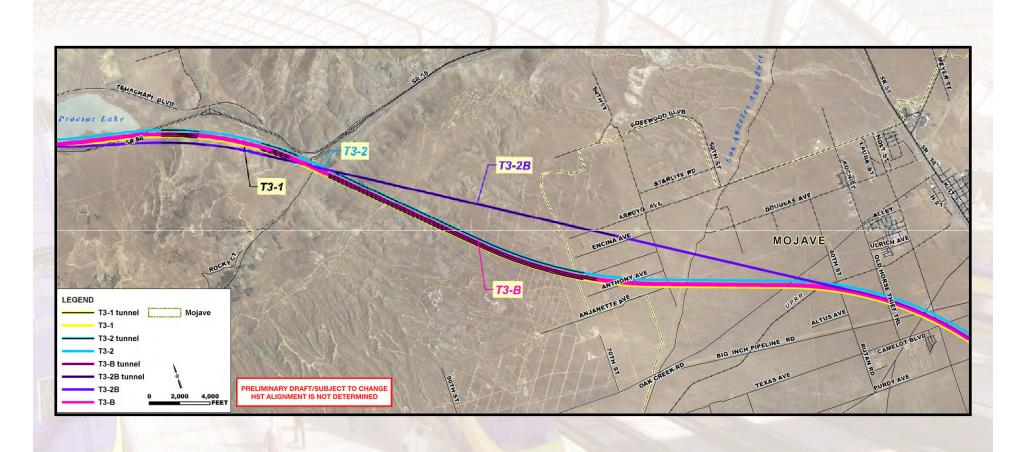
Alternative	T2 - Refined Program Alignment	T3-1 - Quantm-Generated Ailgnment	T3-2 - Modified Quantm- Generated Alignment	T3-B - Phase Break Alignment	T3-2B - Revised Phase Break Alignment
Grade	Exceeds 3.5%, Extensive Tunneling	2.65% Average Grade, 2.75% Sustained Grade over 12 miles	2.5% Average Grade, 2.5% Sustained Grade over 20 miles		2.5% Average Grade, 3.5% Maximum Sustained Grade over 3.4 miles







Mojave Area Alignment Map

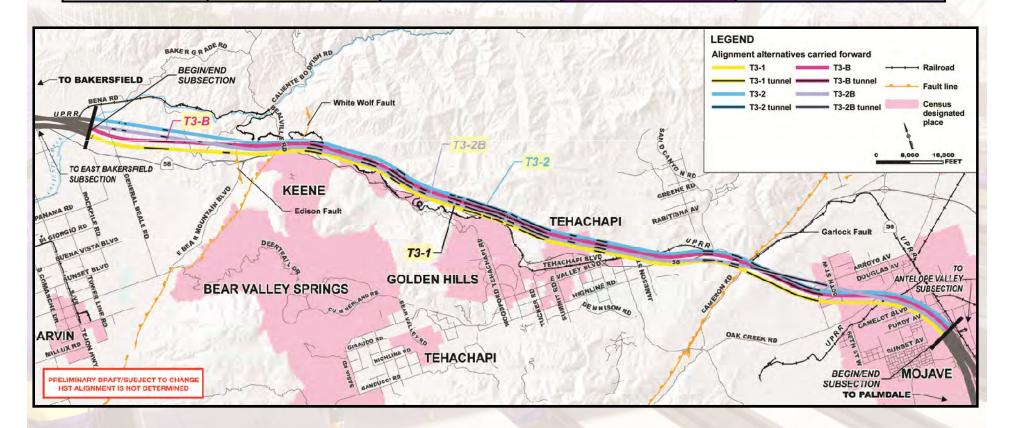




Tehachapi Alternatives Carried Forward

Alternative

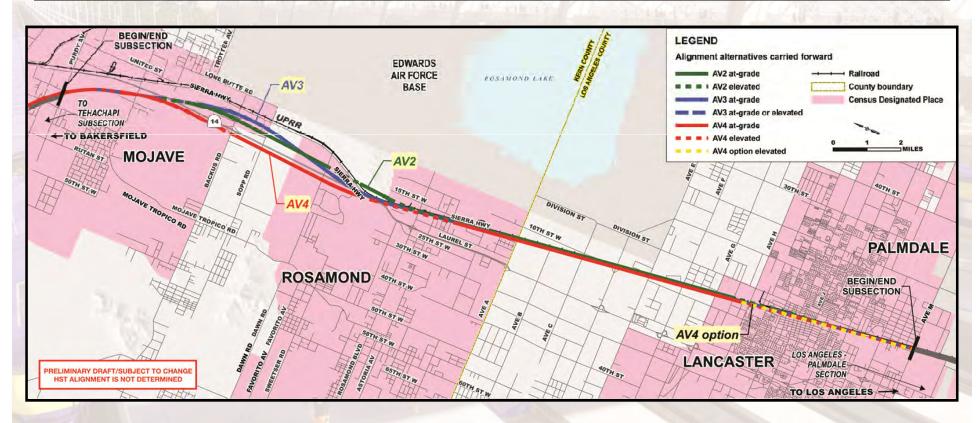
T3-1 - 2.65% Average Grade, 2.75% Sustained Grade over 12 miles T3-2 - 2.5% Average Grade, 2.5% Sustained Grade over 20 miles T3-B - Phase Break Alignment 2.65% Average Grade, 3.5% Maximum Sustained Grade over 3.4 miles T3-2B - Phase Break Alignment 2.5% Average Grade, 3.5% Maximum Sustained Grade over 3.4 miles





Antelope Valley Alternatives Considered

Alternative	AV2 - East Side of UPRR	AV3 - Between UPRR and Sierra Highway		AV4 - Within or Adjacent to Sierra Highway	AV4 - UPRR Avoidance Option
Sub-Alternative	Mixed At-Grade and Elevated	All At-Grade	Partially Elevated	Primarily Elevated	Primarily Elevated







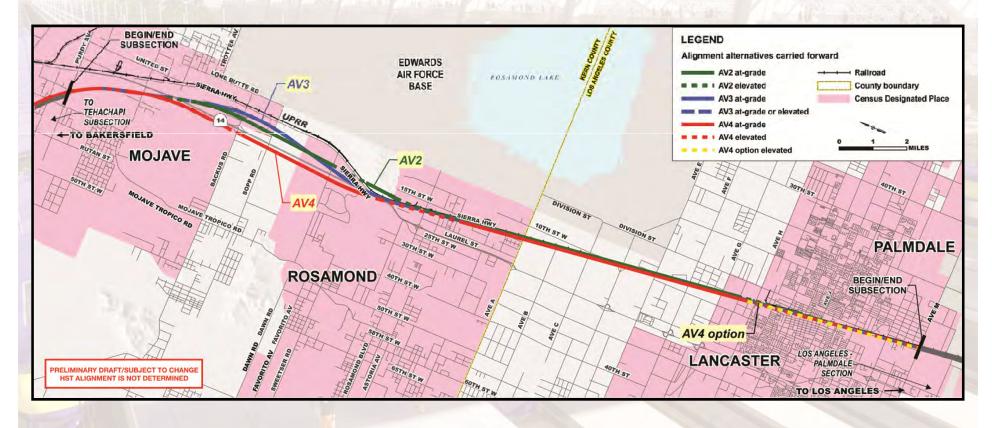
Lancaster Metrolink Station Area





Antelope Valley Alternatives Carried Forward

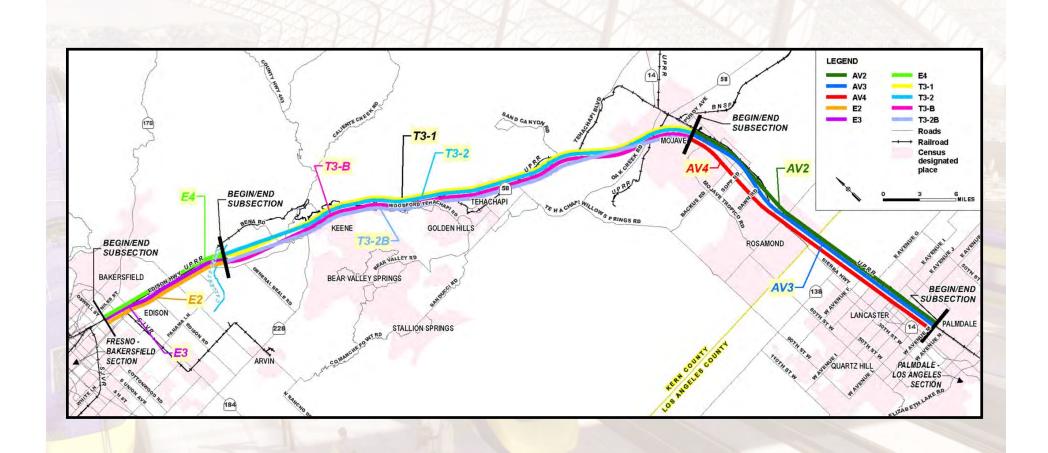
Alternative	AV2 - East Side of UPRR	AV3 - Between UPRR and Sierra Highway		AV4 - Within or Adjacent to Sierra Highway	AV4 - UPRR Avoidance Option
Sub-Alternative	Mixed At-Grade and Elevated	All At-Grade	Partially Elevated	Primarily Elevated	Primarily Elevated







Alternatives Carried Forward for AA





Next Steps

- Board Action to Accept Recommendations
- Continue to meet with Stakeholders and the Public
- Prepare Preliminary AA Report
- Prepare Supplemental AA Report if needed
- Begin Environmental Technical Studies
- Draft EIR/EIS February 2013
- Final EIR/EIS September 2013

